

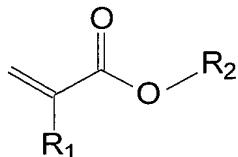
*5 we A1*

What is claimed is:

1. A pressure-sensitive adhesive composition comprising polymers and/or copolymers based at least predominantly on (meth)acrylic acid and/or derivatives thereof, wherein said composition possesses an outgassing level of not more than 50  $\mu\text{g/g}$  in total, preferably less than 10  $\mu\text{g/g}$ , when said composition is measured by the tesa method.

5 2. The pressure-sensitive adhesive composition as claimed in claim 1, wherein the polymers and/or copolymers are prepared using at least the following monomers:

10 (a) from 65 to 100% by weight of acrylic and/or methacrylic acid derivatives of the general formula



15 where  $\text{R}_1 = \text{H}$  or  $\text{CH}_3$  and  $\text{R}_2 =$  an alkyl chain of 2 to 20 carbon atoms,

(b) from 0 to 35% by weight of vinyl compounds containing functional groups.

*A,* 3. A process for preparing a pressure-sensitive adhesive composition as claimed in at least one of the preceding claims, using a polyacrylate solution obtainable by free-20 radical addition polymerization, which comprises a concentration step in which

25 ◆ after polymerization, an entrainer is added to the polyacrylate solution,

◆ the entrainer-admixed polyacrylate solution is passed into an extruder in which said solution is subjected to a carrier distillation,

◆ the concentration thus produces a polyacrylate composition which is processed further from the melt.

4. The process as claimed in claim 3, wherein 30 in at least one step further following concentration, a postpurification is conducted by adding the same entrainer again, or a further entrainer, to the concentrated polyacrylate composition and carrying out a further carrier distillation in the extruder,

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preferably choosing in each case higher temperatures and lower vacuums than in the preceding distillation step.

5. The process as claimed in at least one of claims 3 and 4, wherein  
at least the extruder in the concentration step is a corotating or counterrotating twin-screw extruder.

A, 6. The process as claimed in at least one of claims 3 to 5, wherein  
steam is used as entrainer.

10 7. The process as claimed in at least one of claims 3 to 6, wherein  
◆ the concentrated polyacrylate composition is applied to a backing material  
◆ and the polyacrylate composition on the backing material is subjected to a  
crosslinking reaction.

15 8. The process as claimed in claim 7, wherein  
crosslinking is carried out using UV light in a wavelength range from 250 to 400 nm,  
with the proviso that the output of light in the wavelength range from 300 to 400 nm  
makes up at least 70%, very preferably 90%, of the total irradiated light output.

20 9. An adhesive tape, in particular for use in the electronics industry, comprising a film,  
applied to one or both sides of a backing material, of a pressure-sensitive adhesive  
composition as claimed in either of claims 1 and 2.

10. The adhesive tape as claimed in claim 9, comprising  
25 a backing material having a very low outgassing tendency, preferably of less than  
5 µg/g.

*Add  
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Claim  
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